UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *23 August 2007*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-55* is/are pending in the application.

    4a) Of the above claim(s) *51-55* is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-50* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *05 April 2004* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 51-55 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 23 August 2007.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. **Claims 1-5, 8-9, 11-19, 23-32, 36-37, 39-47 and 50 are rejected under 35 U.S.C.**

   103(a) as being unpatentable over US Patent Application Publication 2001/0049262

   A1 (published 6 December 2001) (herein *Lehtonen*) in view of US Patent 5,694,467

   (patented 2 December 1997) (herein *Young*).

   Claim 1 is limited to a MP3 player. *Lehtonen* also discloses an MP3 player 21 called headset. *Lehtonen* at fig.3, [0030] & [0031]. The *Lehtonen* MP3 player includes a memory comprising the main memory holding the applications and a memory card or a fixed memory that stores MP3 files. *Id.* at [0014]. The main memory of the *Lehtonen* MP3 player comprises an MP3 player module for decoding MP3 files to produce an audio signal and is executed by the *Lehtonen* DSP. *Id.* at [0030] & [0031]. The MCU is the only control element in headset 21, so all input and output signals are routed through it. *See id.* The decoded MP3 files are presented

over right and left speakers 24a, 24b and correspond to the claimed earphone. *Id.* A microphone

25 is further provided for transmitting sound to the *Lehtonen* DSP. *Id.* at [0032]. The

microphone 25 is pivotable, such that it also forms a key inputting unit to transmit a command

requested by a user to said DSP processor. *Id.* at [0033], [0044]. Finally, *Lehtonen* depicts

headset 21 with a Bluetooth transceiver BT2 and an antenna ANT2, which together allow a user

of the headset to enter into a two-way telephone communication with a remote party's telephone

via the mobile telephone 22. *Id.* at fig. 3, [0032] & [0045].

In addition to the structural limitations of the claimed MP3 player treated *supra*, this

claim further specifies functional limitations of the MP3 player when a telephone call is received

at the mobile phone. To wit, when there is an incoming call at the mobile phone, a ring

indication is transmitted to the MP3 player's DSP, which enables MP3 playback to be

automatically paused while establishing a conversation with the mobile phone through the

earphone and microphone under a suspending operation. *Lehtonen* discloses that after mobile

phone 22 receives a call, the headset user optionally lowers the microphone boom 25, causing

the MCU to automatically pause MP3 decoding. *See id.* at [0044]—[0045].

Before continuing the discussion of how *Lehtonen* handles incoming calls, note that the

automatic limitation is being interpreted to broadly cover automatic functions performed by

MCU in response to a user command, which is evidently applicant's intended interpretation in

light of claims 9 and 12-13.

Next, communication 29 commences between the phone and the headset. *Id.* at [0045].

However, *Lehtonen* is silent regarding whether the DSP in the headset receives a ring indication.

It is noted that *Lehtonen* discloses notifying a headset user of an incoming call before pausing the

music, so that the user can respond by lowering the microphone boom, but the notification can

occur through the mobile phone 22 instead of through the headset DSP and earphone.

Young teaches an integrated sound/telephone headset system that allows a user to both

listen to a music source and participate in a telephone conversation using the same headset.

Young at ABSTRACT. *Young* teaches that simply wearing a headset not integrated with the

telephone is disadvantageous since the headset 40 reproducing music makes the telephone ring

signal hard to hear. *Id.* at col. 1 ll. 11-16. In solution, *Young* mixes the incoming ring signal on

phone line 26 with the music feed 16 signals. *Id.* at col. 4 ll. 1-18. Therefore, it would have

been obvious to one of ordinary skill in the art at the time of the invention to provide a ring

signal to the *Lehtonen* DSP where it is mixed with a decoded MP3 stream as taught by *Young* for

the purpose of informing a headset wearer that the *Lehtonen* mobile phone has received a call

without the wearer having to strain to hear the ring signal from the mobile phone.

Claim 2 is limited to the MP3 player of claim 1, as covered by *Lehtonen* in view of

Young. *Lehtonen* discloses a display unit within the headset. *Lehtonen* at [0050]. However, the

display is only intended for watching video, not for displaying a ring indication message.

Assuming that the mobile phone 22 of *Lehtonen* does so, it would be obvious to provide the ring

indication message using the same design principles developed by *Young*. To wit, a user

watching a video on headset 21 would be distracted from the mobile phone's display in the same

way someone listening to music over a headset would be distracted from a remote phone's

ringer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to bring a ring indication message to the headset's display to better ensure the headset

wearer's attention as taught by *Young*.

The above analysis presumed that *Lehtonen* even contemplated using a visual display of an incoming call. This is actually a false presumption, but is nevertheless obvious. The examiner takes Official Notice of providing a ring indication message on a mobile phone's display. For example, caller ID was notoriously affixed to telephonic communication at the time of the invention. Services like caller ID are beneficial for informing a called party of who is calling so they can determine if they wish to answer the call based on the caller's identity. Therefore, it would have been obvious to one of ordinary skill in the art to display, at least, caller ID information with mobile phone 22 and subsequently transfer that information to the headset so a person wearing the headset can receive a visual indication of a caller's ID as was notoriously well known in the art.

Claim 3 is limited to the MP3 player of claim 2 (note the Objection for reflexive dependence *supra*), as covered by *Lehtonen* in view of *Young*. As noted in the rejection of claim 2, played messages—i.e., AVI videos—are displayed over the headset's display. *Lehtonen* at [0050]. Therefore, *Lehtonen* in view of *Young* makes obvious all limitations of the claim.

Claim 4 is limited to the MP3 player of claim 1, as covered by *Lehtonen* in view of *Young*. The examiner notes that *Lehtonen* fails to identify the memory of the headset as a non-volatile memory device. However, the memory of the *Lehtonen* headset includes programs essential to the operation of the headset. *Lehtonen* at [0031]. Using dynamic memories, such as DRAM, would cause the headset to lose all functionality when the battery loses its charge, or is in the process of being replaced. The examiner takes Official Notice of the fact that non-dynamic memories do not require constantly supplied power and, thus, are preferably employed as permanent memory devices. Ergo, it would have been obvious to one of ordinary skill in the

art to use non-dynamic memory to preclude rendering the headset useless when the battery

device loses charge.

Claim 5 is limited to the MP3 player of claim 4, as covered by *Lehtonen* in view of

Young. The *Lehtonen* memory device stores the MP3 player program used by the *Lehtonen*

DSP. *Lehtonen* at [0030] & [0031]. Therefore, *Lehtonen* in view of *Young* makes obvious all

limitations of the claim.

Claim 8 is limited to the MP3 player of claim 1, as covered by *Lehtonen* in view of

Young. The *Lehtonen* memory device stores the MP3 player program used by the *Lehtonen*

DSP. *Lehtonen* at [0030] & [0031]. The MP3 player program includes the ability to pause

playback in response to an incoming call under the suspending operation. *Id.* at [0044].

Therefore, *Lehtonen* in view of *Young* makes obvious all limitations of the claim.

Claim 9 is limited to the MP3 player of claim 8, as covered by *Lehtonen* in view of

Young. As noted in the rejection of claim 1, *Lehtonen* causes MP3 playback to pause when a

user lowers the boom mic 25 in response to an incoming telephone call at mobile phone 22.

Lehtonen at [0044]. Therefore, *Lehtonen* in view of *Young* makes obvious all limitations of the

claim.

Claim 11 is limited to the MP3 player of claim 1, as covered by *Lehtonen* in view of

Young. As shown in the rejection of claim 1, the combination of *Lehtonen* and *Young* teaches

providing a ring signal to the headset device 21 of the *Lehtonen* MP3 player. It follows that the

Lehtonen Lehtonen DSP will have to generate the ring tone since it is the only interface between

the wireless connection 29, over which the ring indication will be received from phone 22, and

the speakers 24a and 24b. Therefore, *Lehtonen* in view of *Young* makes obvious all limitations

of the claim.

Claim 12 is limited to the MP3 player of claim 1, as covered by *Lehtonen* in view of

Young. As noted in the rejection of claim 1, *Lehtonen* causes MP3 playback to pause when a

user lowers the boom mic 25. *Lehtonen* at [0044]. Therefore, *Lehtonen* in view of *Young* makes

obvious all limitations of the claim.

Claim 13 is limited to the MP3 player of claim 1, as covered by *Lehtonen* in view of

Young. As noted in the rejection of claim 1, *Lehtonen* causes MP3 playback to pause when a

user lowers the boom mic 25 in response to an incoming telephone call at mobile phone 22,

which also causes a two-way audio path to be setup between the headset 21 and mobile phone 22

so the headset wearer can talk over phone 22.. *Lehtonen* at [0044]—[0045]. Therefore,

Lehtonen in view of *Young* makes obvious all limitations of the claim.

Claim 14 is limited to the MP3 player of claim 1, as covered by *Lehtonen* in view of

Young. As noted in the rejection of claim 1, BT2 is a Bluetooth transceiver, making the mobile

phone a Bluetooth handset. Therefore, *Lehtonen* in view of *Young* makes obvious all limitations

of the claim.

Claim 15 is limited to a MP3 player. The player recited in this claim contains all the

elements of claim 1. Moreover, it recites an audio outputting interface, corresponding to the

Lehtonen D/A, for the earphone and an audio inputting interface, corresponding to the *Lehtonen*

A/D, for the microphone. Therefore, *Lehtonen* in view of *Young* makes obvious all limitations of

the claim.

Claims 16-19 and 23-26 recite essentially the same limitations as claims 2-5 and 11-14,

respectively, and are rejected for the same reasons.

Claim 27 is limited to an audio player. The player recited in this claim contains all the

elements of claim 1, and is rejected for the same reasons.

Claims 28-32, 36-37 and 39-42 recite essentially the same limitations as claims 1-5, 8,

13 and 11-14, respectively, and are rejected for the same reasons.

Claim 43 is limited to a method for an audio player. The headset/audio player of

Lehtonen described at length *supra* apropos the rejection of claim 1 inherently performs the

claimed method. To wit, headset 21 and mobile phone 22 connect to each other using Bluetooth

link 29. *Lehtonen* at fig.29. The pausing of playing when a ring indication is received is obvious

in view of *Lehtonen* and the teachings of *Young. Claim 1 supra.* Two-way voice

communication occurs between the headset and mobile phone using the earphone 24a, 24b,

microphone 25 and Bluetooth transceiver BT2. *Lehtonen* at [0045]. Therefore, *Lehtonen* in

view of *Young* makes obvious all limitations of the claim.

Claims 44-47 and 50 recite essentially the same limitations as claims 14, 11-12, 1 and 2,

respectively, and are rejected for the same reasons.

2.   **Claims 6-7, 20-21 and 33-35 are rejected under 35 U.S.C. 103(a) as being**

        unpatentable over *Lehtonen* in view of *Young* and further in view of US Patent

        Application Publication 2005/0054379 A1 (effective filing date 23 November 1999)

        (herein *Cao*).

Claim 6 is limited to the MP3 player of claim 1, as covered by *Lehtonen* in view of *Young*. The *Lehtonen* MP3 player includes a Bluetooth link 29 (corresponding to the wireless transceiver) and a memory card slot (corresponding, in part, to the memory), but no other interfaces for interfacing with, for example, a PC. However, MP3 players including PC interfaces, such as USB, are well established in the art. For example, *Cao* teaches a cordless telephone with MP3 player capability. *Cao* at fig.1 & ABSTRACT. The interface port 122 is a USB port enabling music to be retrieved from the Internet via a PC connected to port 122. *Id.* at [0034]. While the headset 21 of *Lehtonen* is able to retrieve music from the Internet via mobile phone 22, one of ordinary skill would recognize that this tethers headset 21 to mobile phone 22, or a like Bluetooth enabled device. It is obviously advantageous to add a USB interface to an MP3 player to increase the number of circumstances where headset 21 can be employed.

Claim 7 is limited to the MP3 player of claim 6, as covered by *Lehtonen* in view of *Young*. As shown in the rejection of claim 6, it would have been obvious to combine a USB port with the headset of *Lehtonen*. Therefore, *Lehtonen* in view of *Young* and further in view of *Cao* makes obvious all limitations of the claim.

Claims 20-21 recite essentially the same limitations as claims 6-7, respectively, and are rejected for the same reasons.

Claims 33/34 and 35 recite essentially the same limitations as claims 6 and 7, respectively, and are rejected for the same reasons.

3.   **Claims 10, 22, 38 and 48-49 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over *Lehtonen* in view of *Young* and further in view of US Patent

6,233,320 B1 (patented 15 May 2001) (herein *Cohen*).

Claim 10 is limited to the MP3 player of claim 1, as covered by *Lehtonen* in view of

Young. Notably, *Lehtonen* fails to teach the salient user-initiated conversation recording function

recited in this claim. However, *Cohen* expressly teaches that cell phones, such as *Lehtonen*

mobile phone 22, greatly benefit from providing user-initiated conversation recording means,

since mobile phone users often lack paper to write down important messages. *Cohen* at fig.2,

col. 1 ll. 36-40 & col. 3 ll. 7-20. Therefore, it would have been obvious to one of ordinary skill

in the art at the time of the invention to include a user-initiated conversation recording means as

taught by *Cohen* for the purpose of allowing a user of mobile phone 22 to record messages when

they lack paper.

Claim 22 recites essentially the same limitations as claim 10, and is rejected for the same

reasons.

Claim 38 recites essentially the same limitations as claim 10, and is rejected for the same

reasons.

Claim 48 recites essentially the same limitations as claim 10, and is rejected for the same

reasons.

Claim 49 is limited to the method of claim 48, as covered by *Lehtonen* in view of *Young*

and further in view of *Cohen*. *Cohen* teaches outputting recorded audio from non-volatile

memory 14 through conversation playback module 56. *See Cohen* at fig. 2. Therefore, *Lehtonen*

in view of *Young* and further in view of *Cohen* makes obvious all limitations of the claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F. Briney III whose telephone number is 571-272-7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Walter F Briney III
Examiner
Art Unit 2615

10/1/07